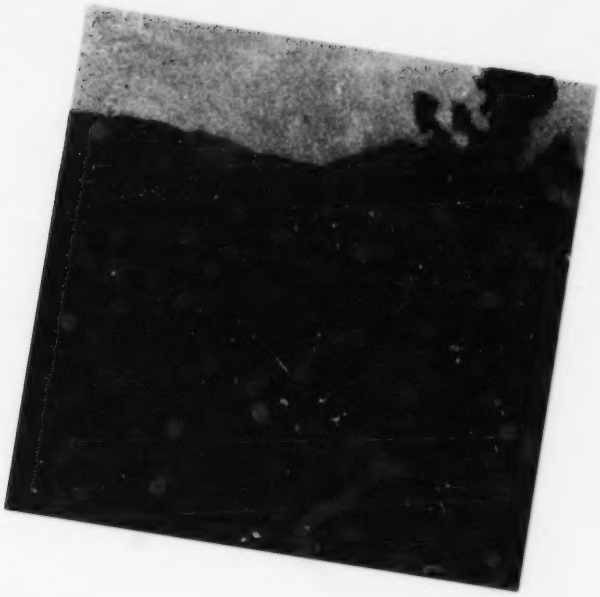
A growing opportunity: Alberta's forest resources



A growing opportunity: Alberta's forest resources

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Alberta's forests

Forests provide Alberta's recreation and hospitality industries with relatively untapped tourist opportunities.

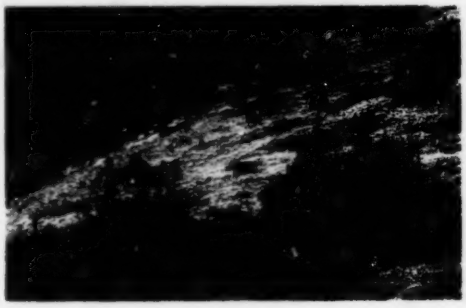
Ask anyone in Canada where Alberta is and, nine times out of ten, they'll say it's part of the prairies. In a strict geographic sense, this is true, but many people – Albertans included – would be startled to discover that almost two-thirds of the province is covered by forest. Most of this forested area is public land.

This land is used for many activities – timber harvesting, trapping, grazing, exploration for oil and gas, coal mining and many forms of recreation, such as hunting, fishing, hiking, camping, birdwatching, photography and cross country skiing.

The resources found on or beneath these public lands are also managed by the government. They include minerals, timber, water, fisheries and wildlife.

From Wood Buffalo National Park in the north, down along the foothills skirting the Rocky Mountains to the United States border in the south, there are 360,000 square kilometres of forest land in Alberta. Our forests cover an area larger than those of Sweden.

Most of Alberta's forests are dominated by lodgepole pine, white and black spruce, and two species of poplar. Lodgepole pine, white spruce and aspen (poplar) account for most of Alberta's total timber production.



Some open areas of forest are used for domestic stock grazing.

Alberta has an international reputation for sound forest management.

Based on the most recent forest inventory, Alberta has more than two billion cubic metres of coniferous and deciduous timber.

In 1989 less than one-half of one per cent of this renewable forest resource was used to provide approximately one billion dollars in forest products sales. Alberta's forest industry produces lumber, posts and rails, pulp, paper, and wood chips. In order to harvest the forest, companies must submit annual operating plans for provincial approval and assume extensive responsibilities in forest management and renewal.

Identifying and improving wildlife habitat is one of the major objectives of Alberta Forestry, Lands and Wildlife.

Alberta's road and rail networks ensure efficient transportation of forest products from forest to mill to end-user.

While softwood timber dominates the industry, new applications have increased the demand for native hardwoods, especially the aspen (or poplar) found extensively in northern Alberta. A number of companies are now producing hardwood pulp and structural panel board.

The role of the department

Alberta Forestry, Lands and Wildlife manages Alberta's renewable resources. Departmental responsibilities include resource planning and management, surveying, mapping and aerial photography, fire protection and administration of legislation regulating land use. ▲ The Department's "integrated use" concept encourages the growth of the forest products industry while ensuring Alberta's forested public lands continue to provide fish and wildlife habitat, vital watersheds, grazing lands, non-renewable resource development sites and a variety of outdoor recreation and tourism opportunities. ▲ The province's integrated resource planning process is designed to identify land use needs and resolve potential conflicts among competing interests for Alberta's public lands. The process assists in protecting sensitive environmental areas while planning for developments that may involve timber harvesting, resort projects, or agricultural expansion. ▲

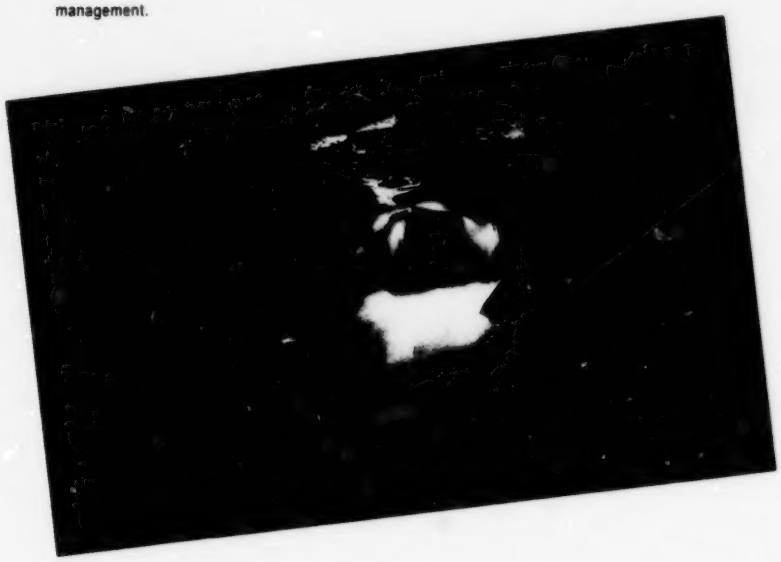
Getting involved

A key factor in balancing sustainable economic development with a sustainable forest resource is the involvement of the citizens of Alberta. ▲ Integrated resource management is a complex responsibility requiring an understanding of all of the activities competing for use of Alberta's forest lands. ▲ Alberta's policy regarding the use of forest resources is that the environment of land, water, vegetation and wildlife are managed as an ecosystem, and not as separate elements. ▲ Although competing uses are often viewed individually, effective management of the resource must consider the many interrelationships with the environment. ▲ In the eastern slopes of the Rocky Mountains, for example, the province has set the following goals for the management of the natural resources found in that region:

Water Management To ensure a continuous, reliable supply of clean water to meet the needs of Albertans and interprovincial users now and in the future.

Wildlife To provide a variety of outdoor recreational and commercial opportunities based on wildlife resources for the benefit and enjoyment of Albertans.

Protection of valuable water resources is a part of Alberta's overall forest management.

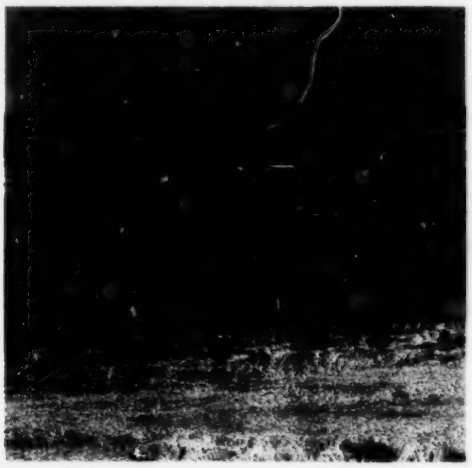


Fisheries To provide a variety of outdoor recreational opportunities based on fisheries resources for the benefit and enjoyment of Albertans.

Recreation To provide both private and public recreation opportunities that will meet the needs of Albertans and also enhance the vacation experiences of visitors to the province.

Timber To provide an optimal, continuous contribution to the economy by the forest-based industries consistent with sound environmental practices recognizing other uses of the forest.

Rangeland To provide a properly managed forage base on rangelands for use by wildlife and domestic livestock.



Agriculture To encourage the optimal development of the renewable resources for the production, processing and marketing of agricultural products for expanding domestic and export markets.

Tourism To encourage the provision of a diverse range of private and public sector tourism facilities, attractions, accommodations and services capable of meeting increasing demands for leisure and business-related opportunities.

Mineral Resources To encourage exploration and development of all mineral resources to meet the needs of Albertans now and in the future.

Cultural and Ecological Resources To ensure that significant features of archaeological, ecological or historical value are identified, protected and managed for scientific, educational and recreational benefits.

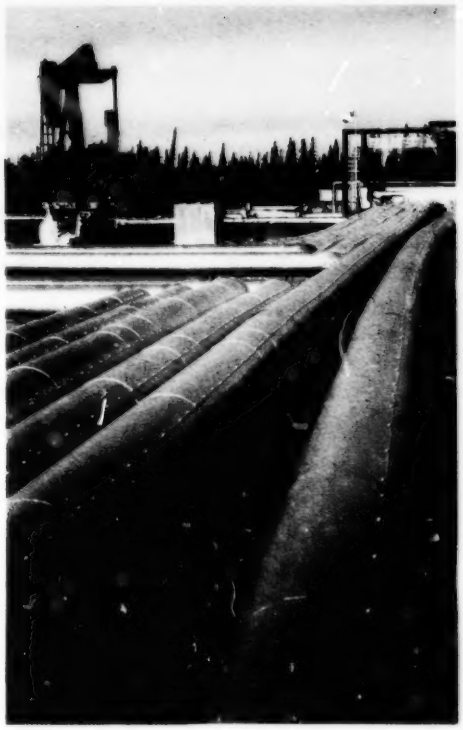
In the foothills of the Rockies and throughout the province, achieving harmony among these activities and related development opportunities is a vital and continuous task. Integrated resource management ensures a balanced use of public lands and resources important to the economic strength and quality of life in Alberta. ▲ Public involvement and a team approach are the keys to successful integrated resource planning. It allows resource specialists and interested parties to work together. Those involved must be willing to discuss all resource concerns and re-evaluate their own positions. ▲ More citizens are taking part in the planning process. Government departments are considering a wide range of opinions and recommendations from people with a keen sense of how important the forests are to us as people and as a province. ▲

Alberta's forests cover approximately 360,000 square kilometres.

Taking stock

Alberta is one of the few regions in Canada with a surplus of commercially valuable softwood timber, primarily lodgepole pine and white spruce, and hardwood timber, mostly aspen (poplar). ▲ According to the most recent forest inventory, the total gross merchantable wood volume on Alberta's productive forest land is over two billion cubic metres. ▲ High quality maps illustrate species composition, heights, density and ages of various forest stands in Alberta. The maps and inventory information also assist in planning and meeting more specific needs such as selecting the best routes for roads, identifying wildlife habitat, and choosing stands that should be harvested. ▲ A data bank tracks adjustments to the resource from timber harvesting, forest fires, or other causes so that the inventory and mapping remain accurate and current. ▲

Oil and gas activity is regulated to minimize its impact on the environment and on wildlife habitat.



Planning for the Future

As the demands on Alberta's public lands and natural resources have increased, the decision-making process has changed.

Integrated resource management has become the basis for decision-making for the use of public lands and resources in Alberta. The key is shared responsibility.

Staff from Alberta Forestry, Lands and Wildlife work with those who have an interest in public land use. This process includes several provincial departments, municipalities, federal agencies, representatives from industry, special interest groups and, of course, the general public.

The result is an integrated resource plan which has a regional overview. The plan is designed to meet the priorities identified for specific areas within that region. For example, plans for some areas of the eastern slopes of the Rocky Mountains focus on protection of the water supply as well as critical wildlife areas. Recreation and timber harvesting may be allowed to take place in other portions of the forest region.

Decisions to allocate timber to forest product development are based on these integrated resource plans which identify prime wildlife habitat, areas for grazing or agriculture, and other potential uses. These factors and others influence if, when and how timber is harvested.

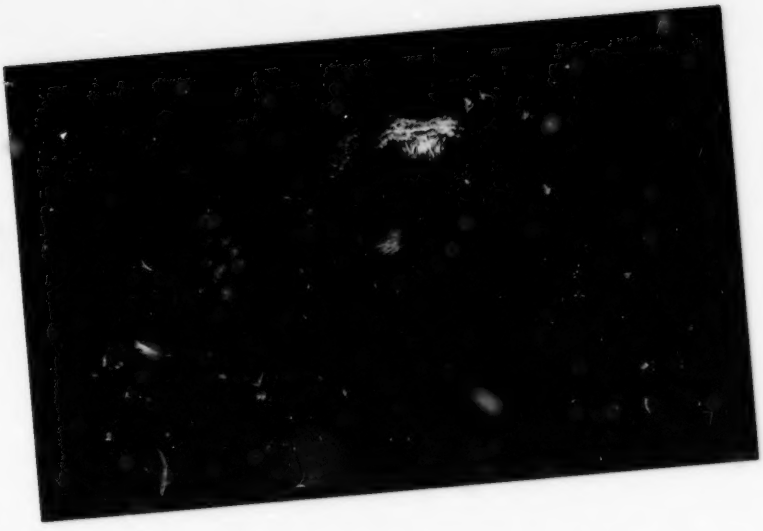
The views of the public are a key component at all stages of the plan's development. Thousands of Albertans are actively involved in the integrated resource planning process – and public participation continues to grow.

Tourism in the Forest

Tourism is Alberta's third largest employment and revenue generating industry. Many of the province's most popular tourist attractions are its wilderness lakes, mountains and forests. ▲ Alberta's unspoiled natural beauty provides foreign visitors with opportunities such as sightseeing tours and wilderness adventure challenges. Outdoor activities such as camping, hiking, hunting, fishing, golf, overnight trail rides, skiing and mountaineering are promoted. ▲ Albertans generate about half of the province's tourism revenue – much of it in return visits to the wilderness recreation areas in Banff, Jasper and Kananaskis Country. ▲ The increase in tourists visiting

our forests demands more roads, campgrounds, resorts, and water and power services. The way people travel to an area and the services available to them upon arrival may have a significant impact on the forest environment. ▲ The provincial government and the Alberta tourism industry have become increasingly interested in promoting the use of forested lands through such private sector developments as guest ranches, commercial campgrounds and cross-country ski lodges. ▲ The government, tourism industry, and the communities and individuals most affected by increasing tourism activities are working together to determine how good forest management can best continue to contribute to, and benefit from, this growing tourism opportunity. ▲

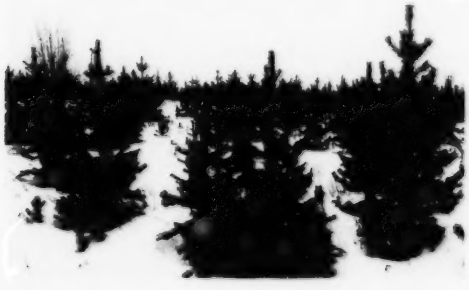
Wildlife in Alberta



Integrated resource management and strict guidelines on timber harvesting protect and often improve wildlife habitat.

Wildlife need space, shelter, abundant food and clean water. As a forest grows older, the trees begin to close in, blocking the sunlight. The grasses and plants eaten by "open forest" species such as elk, deer, moose and other animals become scarce, while "mature forest" species like caribou and pine marten begin to thrive.

Alberta Forestry, Lands and Wildlife works to protect the needs of wildlife through proper management of forests.



Alberta's trees are a resource whose renewal requires careful management and effective reforestation techniques.

Forests are often more productive for wildlife after timber harvesting operations open new areas. Some wildlife populations increase, partly due to forest managers and biologists identifying and protecting known calving areas and animal migration routes.

Small blocks of timber, harvested selectively or over a number of years, can gradually open portions of the forest to native grasses and shrubs and provide food for a variety of animals.

Forest cover is maintained for shelter or protection from predators. In some areas, standing dead trees are left for use by a variety of bird species.

Alberta's forest management preserves a variety of vegetation important to wildlife.

The province's forests are home and refuge for hundreds of species of animals.

Buck for Wildlife

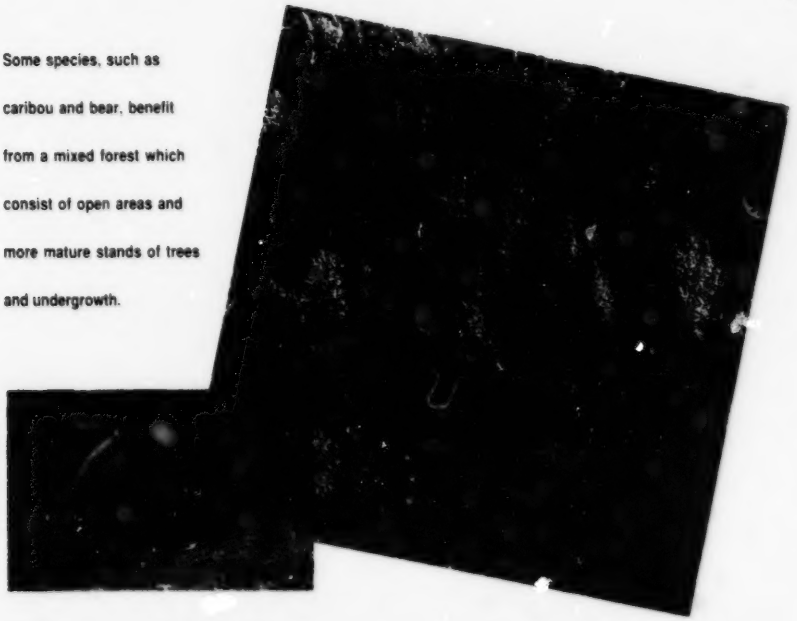
One of the most successful Alberta wildlife programs, Buck for Wildlife, is administered by the Fish and Wildlife Trust Fund. ▲ Started in 1973, the program uses levies attached to the sale of hunting and fishing licenses, as well as private donations, to improve wildlife and fish habitat throughout Alberta. ▲ In most cases, money spent is matched by funds from other government departments such as Alberta Environment and from private organizations such as Ducks Unlimited. ▲

Species such as deer and elk need open areas in the forest.

Controlled burning

Unchecked forest fires ignited by lightning used to be part of a natural cycle that opened up overgrown areas for large game animals. Today, trained firefighters quickly control or extinguish these wildfires. ▲ In the past, Alberta's natives used limited burns during wet spring conditions to maintain good populations of the wildlife they depended on for food. These fires created grazing areas for big game and improved habitat for small mammals and game birds. ▲ In today's forest, Buck for Wildlife has been active in financing prescribed burns for the same reasons, during periods of low fire hazard. Firebreaks are put in place to keep the blaze from spreading outside the designated zone. ▲ Clearing timber through either harvesting or controlled burning has created new range for big game animals. ▲

Some species, such as caribou and bear, benefit from a mixed forest which consist of open areas and more mature stands of trees and undergrowth.



Getting the jump on wildfires

Forest fire protection began in Alberta in the 1930s.

Alberta has one of the best forest protection programs in North America and it safeguards more than just an economic asset of the province!

Alberta's forests contain more than two billion cubic metres of standing timber. While that represents a lot of renewable resource dollars, there are many additional benefits as well.

A forest is a home for animals, a source of recreation, and a major factor in watershed management and erosion control.

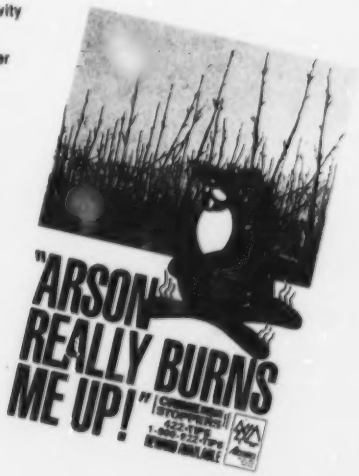
Alberta's immensely valuable forest is also vulnerable to such potentially harmful forces as wildfire, insects and disease. Safeguarding the forests is the responsibility of dedicated foresters, rangers, technicians, scientists, pilots, administrators, firefighters and others who make use of the forest resource for business or pleasure.

Fire is the most visible and dramatic threat to the forest resource. The destructive potential of flames in dry timber is difficult to imagine. A carelessly dropped match or a bolt of lightning can start a wildfire and wipe out thousands of hectares of valuable timber, wildlife habitat or scenic recreational areas in a matter of hours.

Alberta's approach to minimizing its forest fire losses centres on a combination of active prevention, immediate detection and early suppression. As roughly half of all forest fires are caused by human activity, half of all forest fires should be preventable. An on-going public education campaign includes a variety of initiatives. There are radio and television public service announcements and pamphlets and brochures, urging the public to handle campfires safely.

At the peak of the fire season, up to 100 helicopters and 500 firefighters may be standing by to "action" reported wildfires.

Elementary students and teachers use classroom kits with posters, activity books, buttons and other learning resources.



The familiar fire tower remains the front line of defense for fire detection in Alberta. A network of manned lookout sites provides intensive surveillance of the forest during the fire season.

Lending support to the lookouts are aircraft patrols and high-tech innovations such as the infra-red heat scanner and the electronic lightning locator system. The lightning detection equipment is designed to plot and record the sites of lightning strikes the instant they occur anywhere in the province.

Once a fire has been detected, the key to limiting its damage is early and effective suppression. Firefighters and equipment are strategically placed in areas of extreme fire hazard.

Helicopters rush highly trained fire crews to the scene within minutes of detection.

This well-rehearsed quick reaction is backed by a squadron of air tankers and reinforcements of more than 6000 firefighters who are called on to combat any large blazes that are not controlled in the initial response.

Alberta's overall prevention, detection and suppression efforts have had positive results: the number of hectares of forest lost to wildlife is reduced.

The goal is to limit the burned area to less than 0.1 per cent of the protection area each year.

The backbone of Alberta's forest fire detection system is a network of lookout sites, strategically placed throughout the province.

When dispatched to a fire, the air tankers are supervised by "bird dog" officers in smaller aircraft who lead the tankers to the fire and direct the drops of water or retardant.

Fire crews receive intensive fire suppression training.

Forest fitness

The natural ecology of the boreal forest is dictated by wildfire. As a result, most Alberta forests are less than 150 years old. So, although our forest protection activities may change this, currently the term "old growth" forest does not have the same relevance in Alberta as it does in other parts of the world. ▲ Compared to other provinces in Canada, Alberta's forests have had relatively few incidents involving disease and insect pests. Alberta's cool, dry, northern climate is part of the reason for this healthy situation. Our strong commitment to field monitoring and active treatment of problems is another factor. This proactive strategy ensures that potential hazards are discovered and managed before they become uncontrollable. ▲

To supplement the province's lookout network, Alberta also uses a state-of-the-art lightning detection system.

Protecting the forest

Formal forest protection began in Alberta in 1883, when a pair of rangers were appointed to the Calgary and Edmonton Timber Agencies by the federal government. These two men, responsible for the southern and northern halves of the province respectively, were charged with the impossible task of monitoring such activities as timber harvesting, while putting out forest fires with the aid of little more than a horse or canoe, an axe and a shovel. ▲ In 1930, the Natural Resources Transfer Act handed ownership of all natural resources to the provincial government. That same year, the Alberta Forest Service came into being, effectively ushering in the modern era of forest management and protection. ▲ Now part of Alberta Forestry, Lands and Wildlife, the Forest Service employs more than 700 people. ▲ Backed by air tankers, helicopters, chemical fire retardants, lightning location systems and infrared scanners, computer graphics and two-way radios, today's rangers are much better equipped than their earlier counterparts. ▲ Another valuable back-up to Alberta's fire detection program is the vigilance of the general public. Every year, a significant number of fires are detected by outdoorsmen, pilots, and other citizens who have obviously taken the message of personal responsibility to heart. To help facilitate such public co-operation, Alberta Forestry, Lands and Wildlife operates 427-FIRE as a year-round, 24-hour hotline. ▲

Helitack crews are squads of firefighters trained to rappel down next to a blaze from a hovering helicopter.

Timber harvesting and the environment

Early loggers cut only the best trees and left the rest. This wasteful practice created an environmental problem as the debris and wind-toppled trees attracted insects and disease.

Today Alberta Forestry, Lands and Wildlife has developed, in co-operation with the forest industry and environmental agencies, some of the most effective environmental protection legislation in Canada.

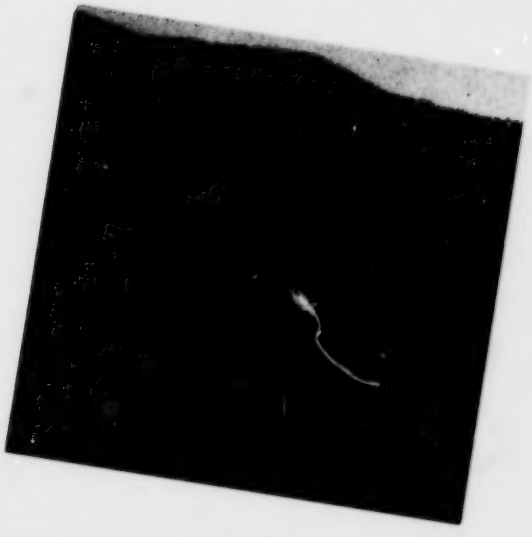
The legislation is based on long-term planning and ongoing monitoring of forest conditions and harvesting techniques.

Integrated resource planning ensures that logging will have minimal impact on the watershed, wildlife and recreational value of the land. Timber harvesting may be prohibited in certain areas set aside for special recreational use, for wildlife, or in areas that are too steep or too close to streams or lakes.

Where timber harvesting is proposed, field data are used to determine how much timber may be cut annually while maintaining requirements for sustainability and environmental protection.

A management plan is developed for the forest area. Resource managers from government and industry, wildlife biologists and, of course, the public, contribute to a mutually acceptable plan for harvesting.

Operational plans must include provision for the protection of valuable watershed areas.



Reforestation requirements are continuously reviewed and updated to encompass changing conditions and improved technology.

Forest renewal work begins even before the trees are cut down. Built right into approved harvesting plans are reforestation requirements ensuring the amount of timber cut will be equalled or exceeded by new growth. The companies are responsible for the reforestation of the harvested area. Over 25 million seedlings are produced each year at the Pine Ridge Forest Nursery for reforestation, and a major expansion is now under way.

In addition to extensive tree planting programs, forest management in Alberta also takes advantage of natural forest regeneration. Since trees have different ways of releasing seeds, individual harvesting plans must be prepared for each species. For example: long and narrow strips are cut in spruce forests in order to allow the wind to blow new seeds from uncut trees into the cutover areas. In pine forests larger irregular cuts are made, and the seed-bearing cones are left in the cutover areas to encourage natural regeneration.

Reforestation

Reforestation is the most important aspect of forest management activities. There are no "quick fix" solutions for future generations if today's resource is not renewed as it is used. ▲ Alberta's policy of "sustainable development" requires that all users of the forest resource remain committed to a plan for its constant renewal. ▲ Techniques used for reforesting an area not only replace the harvested forest but also may improve upon it. The use of genetically superior tree seedlings leads to stronger, healthier trees. ▲ Proper reforestation has additional benefits of erosion control and improved wildlife habitat. ▲ Reforestation of all cutovers has been required in Alberta since 1966. Alberta Forestry, Lands and Wildlife works closely with industry representatives to establish and maintain specific standards which guarantee the success of reforestation projects. ▲ Constant monitoring over a period of years by both government and industry has resulted in reforestation projects consistently meeting or exceeding the established standard for successful forest renewal. ▲ Careful tending of forests as they grow (through cleaning, thinning and fertilizing) can pay big dividends. Studies have shown intensively managed forests are substantially more productive. ▲

In economic terms, Alberta's forests mean billions of dollars in renewable income over many generations.

Forest landscape management guidelines ensure that cutovers are designed to follow the natural slopes and simulate natural forest openings, making them more visually pleasing and beneficial for wildlife.

Without a management and harvesting program, forests can become dense and unsuitable for people and wildlife or, worse, a potential fire hazard. Forest management – which includes timber harvesting – allows for production of the wood products. It also improves habitat for certain species of animals, such as deer and elk, which prefer open areas for feeding.

Timber harvesting can be an effective replacement for the wildfires which, in the past, cleared large areas for grazing land and open wildlife habitat.

Timber harvesting guidelines

Periodic independent studies of the forest industry in Alberta have been essential to the development of management programs and legislation. In 1973 a study reported that, while logging practices were environmentally acceptable, there were problems with soil erosion from forestry roads into streams and rivers. Improvements in road building were recommended and included in the government's guidelines for timber harvesting. ▲ In 1978, the Environment Council of Alberta (ECA) initiated a thorough review of forestry operations, holding public hearings across the province at which 188 briefs were presented by individuals, groups and companies. ▲ The ECA study went far beyond traditional environmental impact assessments, and the report issued the following year contained 140 recommendations. Ninety per cent of them have since been implemented. ▲ Many of the recommendations which dealt with the environment have been incorporated directly into the operating ground rules for timber harvesting and the guidelines covering resource roads, stream crossings, watershed assessment and landscape harvesting. ▲ In the 1990s, a greater public awareness of the importance of the forests and their many benefits to our environment encourages individuals and organizations to get involved. This increasingly active public presence in forest land use decisions means more Albertans are protecting and carefully enjoying our precious forest resources. ▲

Annual operating plans submitted by timber harvesters must comply with government requirements for minimizing impact on watershed, fish and wildlife, and recreation.

Pine Ridge Forest Nursery

The trees of tomorrow are getting their start today at the Pine Ridge Forest Nursery.

This state-of-the-art nursery, located near Smoky Lake,145 kilometres northeast of Edmonton, provides high quality seed and seedlings for Alberta's reforestation program.

The Pine Ridge Forest Nursery was built in 1977. The first seedlings were produced there in 1979. By providing better quality planting stock, the nursery strengthens Alberta's forest industry and forest resource. Several private nurseries also provide Alberta forest companies with high quality seedlings to replenish harvested areas.

At the heart of the reforestation process, Pine Ridge Forest Nursery is one of the most modern and complete facilities of its kind in North America. Seedlings grown in one of 20 greenhouses or on one of the 45 fields surrounding the nursery are destined for use exclusively in Alberta forest renewal projects. Pine Ridge is capable of producing more than 25 million seedlings a year.

Cones are collected from trees and sent to the nursery by Alberta Forestry, Lands and Wildlife staff and forest industry employees. At the nursery, the seeds are extracted, cleaned, tested and stored until they are returned, as seedlings, to their home region. Research has determined just how far seedlings can be planted from their point of origin and still thrive.

Today, coniferous reforestation is completed almost exclusively with lodgepole pine or white spruce seedlings. Recent experimentation with alternate species may lead to a wider variety of trees in commercial forests.

Seedling trees are planted in several research plantations in different growing areas of Alberta.

Collecting seeds from cones for artificial seeding and the production of nursery seedlings is an essential part of reforestation.

Container seedlings are germinated in the controlled atmosphere of a greenhouse.

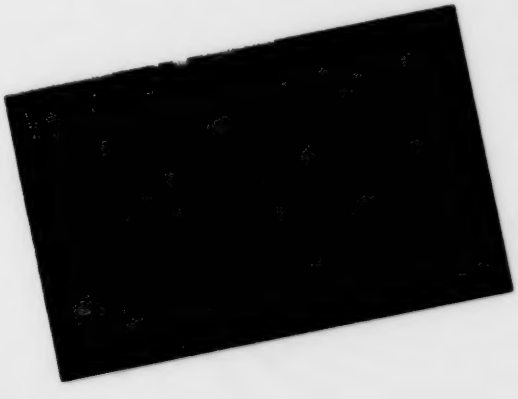
The ability to broaden the variety of our forest species may help increase productivity and minimize damage caused by disease to any one species.

Pine Ridge Forest Nursery is also the centre of most of the provincial genetics program. The program is funded jointly by industry and Alberta Forestry, Lands and Wildlife.

In the Pine Ridge laboratories and fields, genetics researchers test the wood quality and growth characteristics of selected superior trees and perform the delicate task of multiplying these selected individuals. Branches are harvested from the best trees and grafted onto young seedlings, so scientists will have genetic copies of the superior trees to study, plant and breed.

Pine Ridge Forest Nursery is the major centre for seed extraction and seedling production in the province.

Tree geneticists work with lodgepole pine and white spruce as these are currently the most important commercial species.



Breeding better trees

Breeding trees holds great promise for Alberta's forest industry. ▲ A superior tree – taller, faster growing, straighter, with fewer branches – is the goal of a tree breeder. ▲ Genetics and tree improvement is a demonstrated way of increasing the growth, resistance to disease, wood quality and the value of the forest. ▲ Alberta's tree breeding research program began in 1976. Since then almost 1,500 superior trees, mostly lodgepole pine or white spruce, have been selected for the lab and field testing in 32 areas around the province. ▲ The goal is to have genetically superior trees which are suited to the various growing conditions found in different areas in Alberta. ▲

Learning in the forest

In Alberta, the Junior Forest Warden program is sponsored by Alberta Forestry, Lands and Wildlife and run by adult volunteers. More than 3000 youngsters belong to more than 100 clubs throughout the province.

The purpose of the program is to ensure that the younger generation is informed and concerned about conservation of our wildlands and wildlife resources.

The Junior Forest Warden activities draw young people outdoors where real learning about forests and wildlife can take place. There is a strong emphasis on conservation and on the development of an outdoor ethic. Even the youngest wardens are planting trees every year, participating in nature walks, or involved in projects which teach them the importance of careful forest management.

Participants hike, camp, canoe and snowshoe. Older wardens get a chance to experience wilderness camping and backpacking, rock climbing and whitewater canoeing. These activities help them to understand life in the forest.

Alberta's young people have a proud tradition of forest protection.

As these young people progress through the Junior Forest Warden program, they learn a lot about what is involved in a career in forestry or wildlife. Many study for these types of careers later in life.

As public education programs increasingly give young people a broader perspective on Alberta's forests, the resource itself will benefit from a better informed, more experienced populace who have the forest's best interests at heart.

Junior Forest Wardens of all ages are involved in tree planting programs.

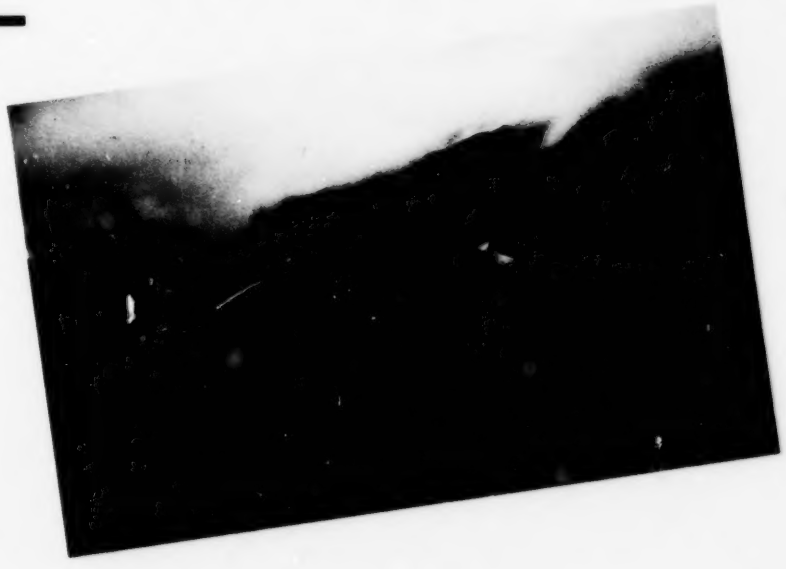
Project Wild is a school-based activity program with an emphasis on safety and conservation.

Project Wild

Fish and Wildlife Conservation education programs complement the forestry activities of the Junior Forest Wardens. In addition to teaching about fish and wildlife, these special programs also focus on ethics, safety and conservation. ▲ Project Wild is a school-based activity program to teach children about wildlife habitat and identification, predator/prey relationships, animal behaviour and, ultimately, the importance of wildlife. ▲ Project Wild activity materials are provided for teachers and adult leaders of young people's groups. ▲ The hunting and fishing education programs teach specific techniques and provide information necessary for certification in each area. ▲

Junior Forest Rangers

The Junior Forest Rangers program offers paid summer work experience for young people, 16 to 18 years of age. They live in tent camps and, with supervision, work at tasks such as trail maintenance and tree planting. ▲ Special courses and training programs in forest protection and inventory techniques, mapping and orienteering, and survival and rescue techniques improve the outdoor skills of these young foresters. ▲ The emphasis is on personal growth and leadership skills as well as meaningful outdoor experiences. ▲



Junior Forest Rangers receive a wide range of outdoor orientation training experiences.

Outdoors is still the best place to learn about the outdoors.

Part of learning about the forest is being there during the different seasons.

Alberta Forestry Association

The forest is a living entity – a complex ecosystem in which the inhabitants are born, live, and die, with new generations coming after to renew the process.

Getting this simple message to Albertans is the basis for the The Alberta Forestry Association (AFA), a team made up of individuals, companies and government, all vitally interested in, and dedicated to, maintaining Alberta's forests as a productive and renewable resource. ▲ The association's major goal is increased public awareness and education. AFA works to bring about a better understanding of the forest among Albertans of all ages and backgrounds. It also serves as a sounding board for public concerns regarding present and future uses of the forest. ▲ The Alberta Forestry Association has a leadership role in developing common objectives and co-operation among: forest environmentalists and conservationists, recreational users, timber harvesters , educators , and government planners and managers of the forest resource. ▲

For more information, contact:

Alberta Forestry Association
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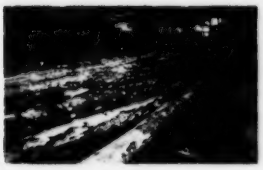
10526 Jasper Avenue
Edmonton, Alberta, Canada
T5J 1Z7

☎ (403) 428-7582

The Alberta Forestry Association sponsors forestry awareness programs for young people.

Forest industry and products



In the past few years, the forest products industry, one of the most rapidly growing sectors in Alberta's economy, has provided direct employment for over 10,000 Albertans.

When the producers of secondary forest products are considered, forestry is the major industry in 54 Alberta communities.

Alberta Forest Products Association inspectors periodically visit Alberta mills to maintain quality standards.

Lumber

Sawmills produce over 1.7 billion board feet of lumber each year. Most Alberta lumber is made from white spruce or lodgepole pine.

Alberta's northern climate encourages slow growth and produces close-grained, structurally superior trees. The long wood fibres in Alberta's spruce and pine mean strong, lightweight, pliant wood with excellent characteristics for a variety of purposes. Consistent, light-coloured, tight-knotted spruce and pine logs are processed into quality wood products.

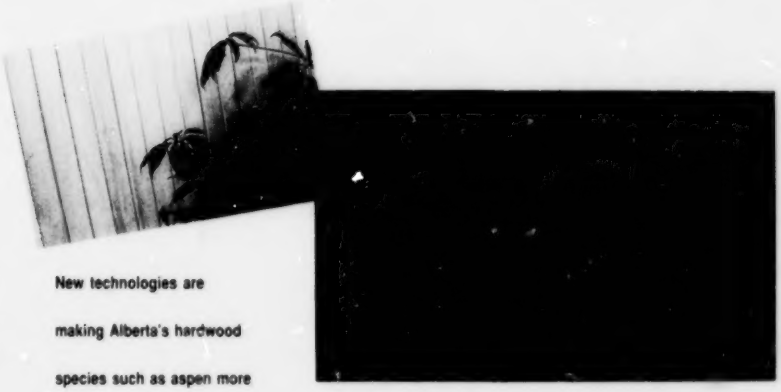
Widely used in North America, Alberta lumber is ideal for components of residential homes and commercial buildings. Alberta lumber is also re-manufactured for use as moulding, furniture, panelling and flooring.

While softwood timber currently dominates the industry, new applications are making native hardwoods, especially aspen (poplar), increasingly desirable. As a result, a growing number of companies are producing aspen lumber.

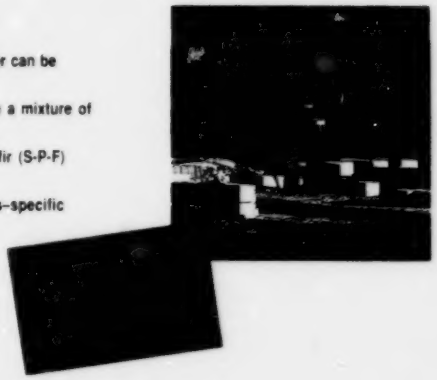
Most Alberta lumber is kiln-dried to reduce moisture content. This process kills potentially harmful insects or bacteria which may be in the wood. It also reduces the weight of the lumber and cuts transportation costs.

Alberta's low natural gas costs make kiln drying an economical practice and kiln schedules can be regulated to meet specific species and customer needs.

To ensure lumber meets worldwide specifications, stringent quality control guidelines are enforced by certified inspectors of the Alberta Forest Products Association. These independent inspectors visit mills at random, test and make certain graded lumber meets quality standards.

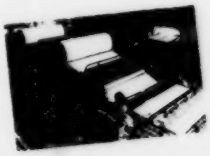


New technologies are making Alberta's hardwood species such as aspen more desirable in panelling and other specialty products.



Alberta lumber can be transported in a mixture of spruce–pine–fir (S-P-F) or in species-specific shipments.

New pulp and paper mills proposed for Alberta use the most advanced technology in the world.



Pulp and paper

Alberta's well-developed pulp and paper industry produces newsprint and pulp for use in manufacturing a variety of paper products.

Recent growth in this industry has contributed to increased employment and diversification of Alberta's economy. Public and private evaluation and investment continue to ensure that the industry is environmentally sound and sustainable.

In the future, the quality and mix of kraft and mechanical market pulps will contribute to exciting growth in the province's paper manufacturing industry.

Alberta Forest Product Shippers Association

The Alberta Forest Products Shippers Association (AFPSA) is a non-profit organization whose major objectives include assisting forest product manufacturers in minimizing transportation costs and co-ordinating the movement of forest products from mills in Alberta to national and international markets. ▲ Membership is open to Alberta mills and re-manufacturers of forest products. Small and large companies alike may join. ▲ Member benefits include reduced transportation rates, improved transportation management, and a more efficient accounting of transportation costs. ▲

For more information, contact:

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#103, 11710 Kingsway Avenue
Edmonton, Alberta
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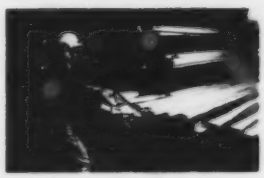
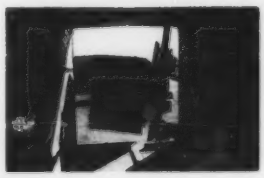
☎ (403) 455-4471 or 455-4556
fax (403) 451-3824

A well-trained and experienced pool of forestry workers ensures prompt and professional movement of product.





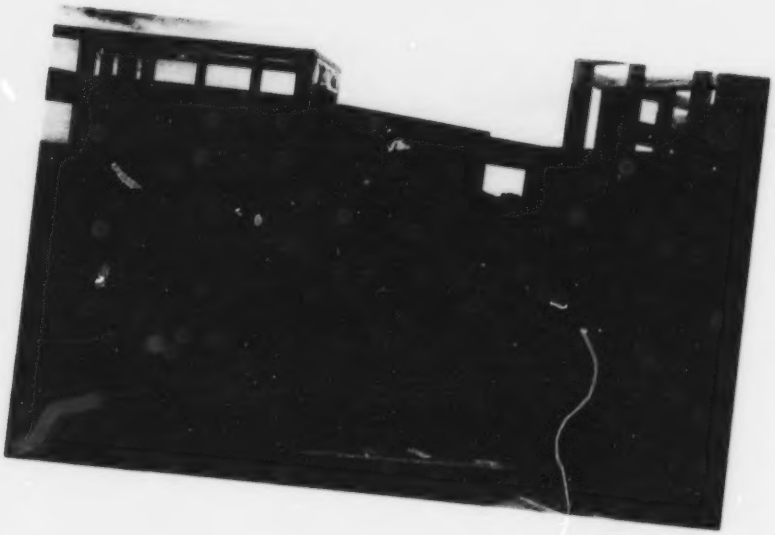
Panelboard

Panelboard is highly regarded in many international markets.

White spruce is the main species used in the production of plywood panels. Plywood is used for wall and roof sheathing, sub-flooring and other building components.

Medium-density fibreboard (MDF), is a panel product manufactured from spruce and pine sawmill by-products such as sawdust, shavings and chips.

Combined with a synthetic resin, these materials give MDF physical and finishing properties which make it an attractive alternative to traditional materials in the furniture industry. MDF can be used for furniture, moulding, shelving, countertops, kitchen cabinets, panelling, decking, siding, door core, and roof and wall sheathing.



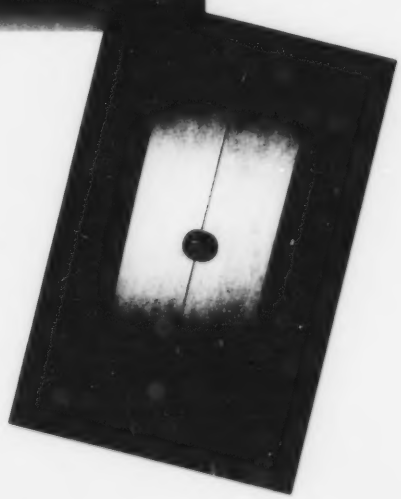
Alberta lumber is used widely in North America in the construction of residential houses and commercial buildings.

Oriented strandboard (OSB) is one of Alberta's most successful new products. This structural panel is made of long, thin strands of aspen or poplar bonded together under intense heat and pressure with a waterproof phenolic resin.

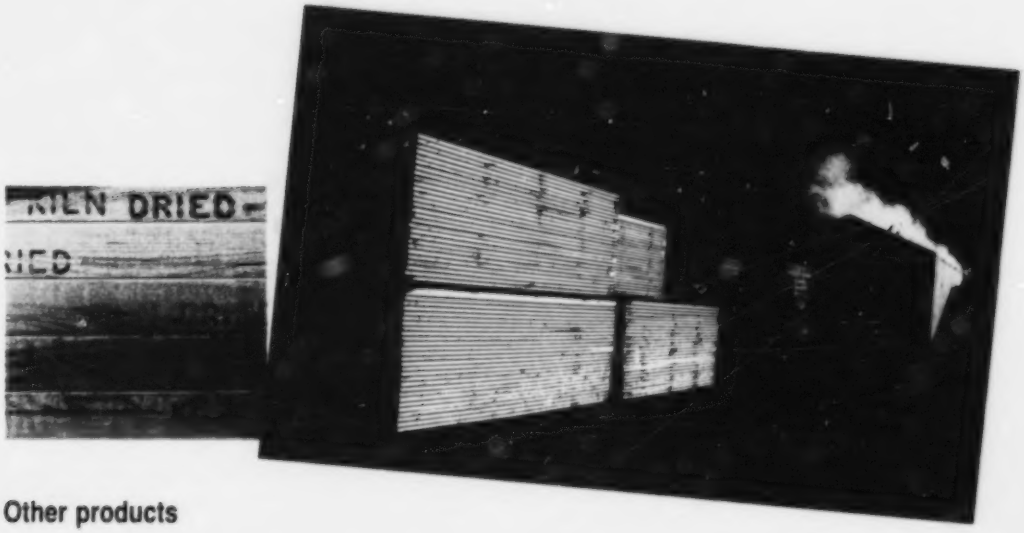
This rigid, flat exterior panel meets all the performance standards necessary for residential and commercial construction. Building inspectors and builders in many countries find Alberta OSB products excellent for wall and roof sheathing, sub-flooring, pallets and industrial packaging and specialty furniture.

Medium-density fibreboard (MDF) has uniform texture, density, and good machining characteristics and is used in the furniture and laminating industries.

Oriented strandboard, a relatively new product currently produced from aspen (poplar) provides a new product for a variety of construction needs.



Kiln drying lumber reduces the weight and, therefore, the cost of shipping the product to international markets.



Other products

Alberta manufacturing facilities also produce insulation board and specialty wood products such as poles, posts, ties and lumber used in fences, decks and a variety of secondary wood products.

Forest product businesses provide an economic base for growing secondary manufacturing industries in many Alberta communities.

For example, the furniture manufacturing sector is gaining prominence as a source of products for markets in Canada and the United States.

Specialized industries are manufacturing everything from furniture components to paper. The world demand for forest products is increasing and Alberta is positioned to be one of the world's most reliable sources of pulp and paper, lumber, panelboard, and finished wood products.

Alberta's manufacturers of furniture and furniture components have broadened the base of the forest products industry in the province.

Industry analysts cite the importance of Alberta's

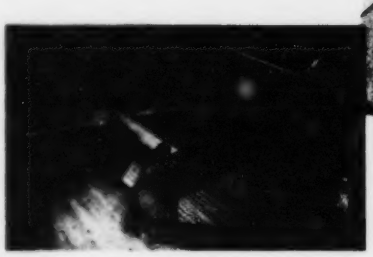
- high quality resource
- effective forest management
- highly skilled labour force
- well-developed transportation and communications networks
- low energy costs
- on-going research and development
- desire for customer satisfaction,
- high environmental standards

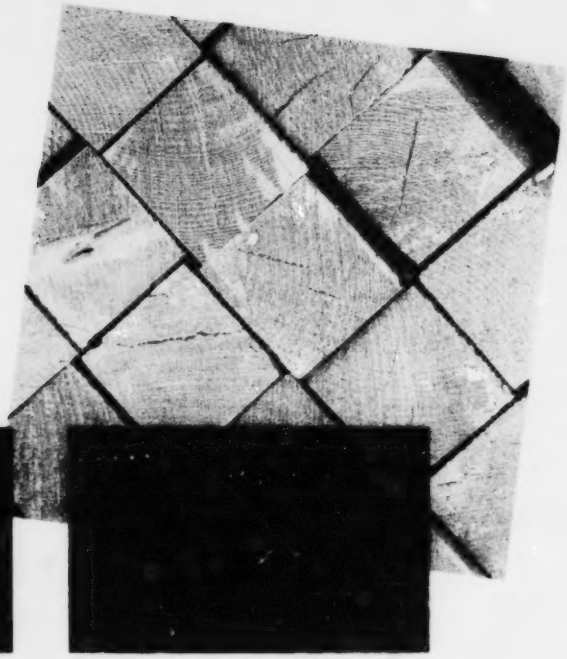
as indicators of the province's potential for success in the global forest products market.

Alberta has a strong national and international network of forest product producers, manufacturers and markets.

Responsible forest development and product diversity make Alberta forest products a growing opportunity!

Cutting and shipping to customer requirements gives Alberta forest products companies a competitive edge and an international reputation for customer satisfaction.





Alberta Forest Products Association

The Alberta Forest Products Association (AFPA) has represented members of the Alberta forest industry since the early 1930s. ▲ One of the prime responsibilities of the association is quality control. AFPA employs grading inspectors who ensure that the highest standards of lumber production are maintained. This quality control program and the continuing education of mill staff has resulted in the AFPA grade stamp being recognized by all leading standards and code authorities in Canada and the United States. ▲ The AFPA is also involved in product promotion and worksite safety courses. The association works closely with similar associations across Canada and the United States to help provide a common voice in relating forest industry concerns to government and the public. ▲ AFPA member companies produce a wide variety of wood products from lumber and panelboard to pulp and newsprint. They also vary in size from small lumber producers to large international corporations. This mixture of companies and products has expanded the AFPA original mandate to include providing the public with a better understanding of the overall forest industry and the important aspects of each sector. The AFPA has become the voice of the forest industry in Alberta and is one of the centres for the distribution of information on forest industry issues. ▲

For more information, contact:

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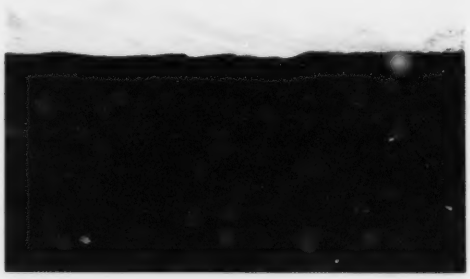

For more information, contact:

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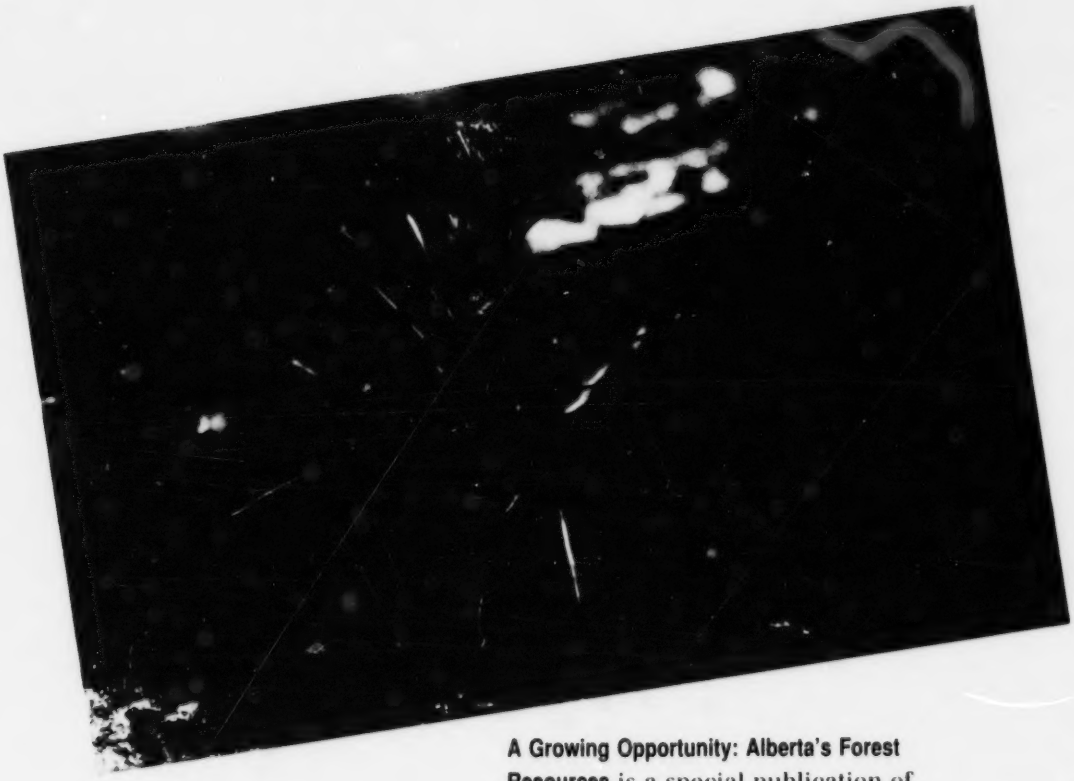

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